



<b>Classification:</b> Electric Generation System Specialist I	<b>Position No.</b> 8100-4841-016
<b>CBID:</b> R09	<b>Office:</b> Supply Analysis
<b>Date Prepared:</b> November 16, 2015	<b>Division:</b> Energy Assessments
<b>KEY: (E) IS ESSENTIAL, (M) IS MARGINAL</b>	

Under the general direction of the Electric Generation System Specialist III in the Supply Analysis Office, the incumbent will perform or direct varied, difficult, and complex economic and mathematical analyses to provide decision-makers and the public with current and useful information and objective analyses of the costs and benefits associated with integrating and developing portfolios of distributed energy resources (DERs), including energy efficiency, demand response, electric vehicles, photovoltaic and storage systems. These assignments will be varied, complex, technical, and require the application of knowledge of power plants and electric system infrastructure design, operation, electrical engineering, and the economics and finance of power plant and electric system development. These plans and costs will be developed to meet local system reliability needs, thus avoiding high value investments associated with transmission and distribution infrastructure upgrades. The distribution system level locations that will be studied are identified in the investor-owned utilities (IOUs) Distribution Resource Plans (DRPs) required by Public Utilities Code 769 that was instituted by AB 327, Section 8 (Perea 2013). As the state moves forward with its commitment to develop an integrated planning process that includes DERs to achieve its environmental goals, coordinating local and system energy resource planning will require study and analysis. The incumbent may serve as a project lead over other technical and analytical staff.

#### **WORKING CONDITIONS:**

Work is performed primarily in an office, conference room, and hearing room environment and may require standing and walking as well as sitting for long periods of time. Work area is well lighted and ventilation is adequate. The noise level may be often high. Some travel is required to attend off-site meetings. Additional hours beyond an eight-hour workday or forty-hour workweek may be required.

#### **DUTIES AND RESPONSIBILITIES:**

- 30% Monitor and participate in the development of a new proposed California Public Utilities Commission (CPUC) location net benefit methodology (LNBm) that will be used to calculate the costs and benefits of groups of customer DER portfolios. Work with stakeholders to identify DER benefit components and identify methodologies to quantify them. Develop an understanding of the Distributed Energy Resources Avoided Cost (DERAC) calculator and develop financial values that can replace system-level values with location-specific values. Validate these financial assumptions. Focus and quantify all customer options including those that reduce customer load as well customer generation and storage. Evaluate how these resources and their attributes compare to other system reliability options. (E)

**DUTY STATEMENT**

- 25% Assess and analyze the impacts of DERs on distribution planning and how these resources can be used to meet locational requirements. Evaluate the impact of increased penetration of DERs on traditional grid investment and cost methodologies. Assess how high penetrations of DERs can be integrated and optimized to provide grid benefits that will influence distribution planning and investments. Also, identify how multiple 3<sup>rd</sup> party and utility-owned DER resources could be operated in a coordinated manner to support operational needs and provide value. (E)
- 20% Compile and study local customer load profiles and identify customer data that will be necessary to develop up-to-date assessments of customer class trends in response to California's new environmental goals. Evaluate how these trends translate to customers in local reliability areas. Identify emerging technical and market problems and propose remedial actions. (E)
- 15% Develop, and implement various methods to identify and assess the growth patterns of distribution connected DERs in optimal locations identified in IOUs DRPs. Evaluate and quantify opportunities for these resources to defer both distribution and transmission infrastructure investments. Compile data and information that is needed for system analysis and is useful to electricity service market participants. (E)
- 5% Synthesize and communicate complicated information in a simple, consumer-friendly manner. Prepare reports, testify at Energy Commission and CPUC hearings, and make presentations to staff, management, and the public on issues associated with electricity market developments. (E)
- 5% Perform other duties as required consistent with the specifications of this classification. (M)

SIGNATURES			
I Certify That I Am Able To Perform, With Or Without The Assistance Of A Reasonable Accommodation, The Essential Job Duties Of This Position			
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Employee, EGSSI	Date	Linda Kelly, EGSS III	Date